

**REMARKS**

Claims 21 – 38 are currently pending in the application. No claims have been amended in this response. Reconsideration of the rejected claims in view of the following remarks is respectfully requested.

***Allowable Subject Matter***

Applicants appreciate the Examiner's indication of the allowable subject matter of claim 33. However, Applicants submit that all of the claims are allowable for the reasons set forth below.

***Requirement for Information***

The Examiner has made a Requirement for Information under 37 C.F.R. 1.105, specifically requiring the provision of "Rapid Scene Analysis from Compressed Video", IEEE Transactions on Circuits and Systems for Video Technology, Vol. 5., No. 6, pp. 533 – 544, December 1995, Yeo and Lui. Applicants have provided herewith the requested information.

The Examiner is reminded of the guidance provided by MPEP § 704.11(b)(III) regarding a Requirement for Information:

... A requirement for information is not proper when no further action would be taken by the examiner. The reasonable necessity criteria for a requirement for information implies further action by the examiner. This means that actions in which requirements for information necessary for examination are made should generally be a non-final action because the applicant's reply must be considered and applied as appropriate. . . .

Thus, Applicants submit that the Examiner is required to consider and apply as appropriate the information requested under 37 C.F.R. 1.105 in response to this submission.

***35 U.S.C. § 112 Rejections***

Claim 33 was rejected under 35 U.S.C. §112, 2<sup>nd</sup> paragraph. This rejection is respectfully traversed.

The Examiner asserts that claim 33 is indefinite because the “flow of the claim language suggests that the writing steps and the read[ing] steps occur after the display steps, thus rendering the writing and reading moot. Therefore it remains unclear when exactly the writing and reading steps should take place” (Office Action, paragraph 4). Applicants disagree with the Examiner’s assertion that the order of the clauses in claim 33 renders the claim indefinite.

Applicants submit that it is improper for the Examiner to read a specific order of the steps into the method of claim 33. MPEP §2111.01 states that

. . . it was improper to read a specific order of steps into method claims where, as a matter of logic or grammar, the language of the method claims did not impose a specific order on the performance of the method steps, and the specification did not directly or implicitly require a particular order. *Altiris Inc. v. Symantec Corp.*, 318 F.3d 1363, 1371, 65 USPQ2d 1865, 1869-70 (Fed. Cir. 2003).

Moreover, the Examiner is reminded that definiteness of claim language must be analyzed, not in a vacuum, but in light of: the content of the particular application disclosure; the teachings of the prior art; and the claim interpretation that would be given by one possessing the ordinary level of skill in the pertinent art at the time the invention was made. MPEP §2173.02.

Applicants respectfully submit that claim 33 is clear and definite when read in light of the disclosure (e.g., pages 13-15 of the specification and FIGS. 13 and 14). For example, page 13, lines 19-29 disclose:

A preferred method of selecting summary frames from the set .... is to interleave the section of the frames. If at each set of embedding, it is desired to

select and embed some M frames ...., the set of summary frames are listed or written into a table 50 of width L/M and height M in a row-wise fashion (i.e., place the frames in the first row, from left to right, then in the second row, and so on), as shown by write arrow 52. ... At each step of the embedding, the frames are read off in a next column, as illustrated by read arrow 54. In this manner, we guarantee that each set of M summary frames selected represent video content spanning a longer period of time than mere[ly] the most recent M summary.

In responding to these arguments, presented in the previous response, the Examiner states:

Applicant's arguments with respect to claim 33 have been noted. However, without defining clearly where the writing and reading steps take place, the scope of the claim language cannot be ascertained.

Applicants respectfully submit that the Examiner has not acknowledged the guidance provided by the MPEP and has not fully responded to Applicants' previously presented arguments. Applicants submit that the language of claim 33 does not impose a specific order on the performance of the method steps, and the specification does not directly or implicitly require a particular order.

Additionally, assuming *arguendo* that the language of the claim does impose a specific order on the performance of the method steps, or that the specification does directly or implicitly require a particular order (neither which the Applicants concede), Applicants submit that the steps are in a proper order. The writing and reading steps further define how the selected frames are displayed in an interleaved manner, thus further defining the displaying step. Thus, Applicants submit that the steps are in a proper order.

Accordingly, Applicants respectfully request that the rejection over claim 33 be withdrawn.

***35 U.S.C. § 102 Rejections***

Claims 21 – 28, 37 and 38 were rejected under 35 U.S.C. §102(e) for being anticipated by U.S. Patent No. 5,852,474 issued to Nakagaki et al. (“Nakagaki”).<sup>1</sup> This rejection is respectfully traversed.

To anticipate a claim, each and every element as set forth in the claim must be found, either expressly or inherently described, in a single prior art reference. MPEP § 2131. Applicants submit that Nakagaki does not disclose all of the features of the claimed invention.

**Independent Claims 21 and 25**

The present invention relates to a video viewing system and method. Specifically, claim 21 recites, in pertinent part:

. . . means for selecting a programming channel containing video program in progress; a display screen for viewing a video program in progress; and at least one summary frame also displayed on said display screen overlaid onto said video program in progress at a same time when said programming channel is changed, said at least one summary frame comprising a past frame from said video program in progress.

Claim 25 recites, in pertinent part:

. . . a display screen for viewing a video program; at least one summary frame displayed on said display screen at a same time and overlaid with said video program when a programming channel is changed, said at least one summary frame comprising one of a past or future frame from said video program; a control means for allowing a user to change said video program and for allowing said user to select said at least one summary frame to play at least a segment of said video program corresponding to said selected summary frame.

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<sup>1</sup> Applicants note that claim 36 is not included in the statement of the rejection on page 4 of the Detailed Action. However, an explanation as to the rejection of claim 36 is provided on page 5 of the Detailed Action. Accordingly, Applicants are treating claim 36 as rejected under 35 U.S.C. § 102(e) by Nakagaki.

Applicants submit that these features are not disclosed by Nakagaki. For example, Applicants submit that Nakagaki does not disclose at least one summary frame also displayed on the display screen overlaid onto the video program in progress *at a same time* when the programming channel is changed.

Nakagaki discloses a television receiver including a playback mode for storing screen image information for a predetermined time to reproduce the image. More specifically, Nakagaki discloses at column 3, line 20 that:

. . . signals of a television program of a cable television broadcast system and/or the ordinary television broadcast system are received such that color video signals of the received program are inputted from the input terminal 6 to be fed to the Y/C separator 7. The signals are then separated into a luminescence signal Y and a chrominance signal C. The signal C is further supplied to the color decoder 8 to be decoded into color difference signals R - Y and B - Y. The luminescence signal Y and the color difference signals are stored in the delay circuit 5b and then are inputted via the switch circuit 9 to the RGB converter 10 to be converted into primary color signals R, G and B. The color signals are fed to the CRT 11 such that the color video signals inputted from the input terminal 6 are displayed as a color picture on the CRT 11.

Additionally, the luminescence signal Y and the color difference signals R - Y and B - Y are sent to the delay circuit 5a including a semiconductor memory. When the television receiver is powered and a desired television program is started to be received, the delay circuit 5a automatically initiates a write operation to sequentially store therein the luminescence signal Y and the color difference signals R - Y and B - Y.

When the operator conducts a play operation by the remote controller 1, a play instruction is accordingly received by the receiver 2 and is then fed to the microprocessor 3 to be decoded therein. According to a result of the decode operation, the control circuit 4 achieves a control operation to read the luminescence signal Y and the color difference signals R - Y and B - Y from the delay circuit 5a in the play mode specified by the remote controller 1 and controls the switch circuit 9. Resultantly, the luminescence signal Y and the color difference signals R - Y and B - Y attained from the delay circuit 5a are combined by the switch circuit 9 with a signal outputted from the delay circuit 5b to be delivered to the RGB converter 10. The signal is then sent to the CRT 11. As a result, a color picture is displayed on the screen of the CRT 11 according to the luminescence signal Y and color difference signals R - Y and B - Y obtained from the delay circuit 5a.

On the display screen of the CRT 11, pictures of signals acquired from the delay circuits 5a and 5b are presented in a method using a subordinate display

area disposed at a predetermined position of the main screen area (picture-in-picture (PinP) display) or in a method using a subordinate display area disposed outside of the main screen area (picture-out-picture (PoutP) display).

Thus, Applicants submit that Nakagaki discloses a delay circuit that will record a currently-watched television signal for delayed viewing. When a user changes a channel, the delay circuit will only then begin to record that channel in the delay circuit. Therefore, Applicants submit that at the point a channel is changed from an “old” channel to a “new” channel, the delay circuit will not have any of the “new” channel recorded therein. While Applicants acknowledge that the memory device may contain a recording of the “old” channel, Applicants submit that the “old” channel is not the video program in progress.

Thus, Applicants submit that Nakagaki does not disclose at least one summary frame also displayed on the display screen overlaid onto the video program in progress *at a same time when the programming channel is changed*, the at least one summary frame comprising a past frame from the video program in progress (claim 21); or at least one summary frame displayed on the display screen *at a same time and overlaid with the video program when a programming channel is changed*, the at least one summary frame comprising one of a past or future frame from the video program (claim 25).

Therefore, Applicants submit that Nakagaki does not disclose each feature of independent claims 21 and 25.

Moreover, Applicants respectfully submit that the Examiner did not properly reject claims 21 and 25, in that the Examiner did not address each of the claim features. Specifically, the Examiner stated (emphasis added):

At least one summary frame (subordinate screen) also displayed on the display screen overlaid onto the video program in progress at the same time (see fig. 12B) after the programming channel is changed (see col. 4, lines 37 – 42, on

receiving signals of a broadcast programs necessitates the step of tuning to that channel), the at least one summary frame comprising past frame from the video program in progress.

Specifically, the Examiner did not address the limitation *when said programming channel is changed*. Thus, Applicants submit that the Examiner did not address each claim feature. Moreover, as set forth above, Applicants submit that Nakagaki does not disclose at least one summary frame also displayed on the display screen overlaid onto the video program in progress *at a same time when the programming channel is changed* (claim 21); or at least one summary frame displayed on the display screen *at a same time and overlaid with the video program when a programming channel is changed* (claim 25).

#### Independent Claim 36

Initially, Applicants note that claim 36 was not stated as rejected under 35 U.S.C. § 102(e). However, Applicants address the rejection of claim 36 set forth in the Office Action below. Claim 36 recites, in pertinent part:

. . . at least one summary frame also displayed on said display screen along with said video program in progress at a same time when said programming channel is changed, said at least one summary frame comprising a past frame from said video program in progress, said at least one summary frame corresponding to a past frame from said video program in progress; and at least one preview frame comprising a future frame from said video program in progress displayed at a same time as said at least one summary frame and said video program in progress . . .

Applicants submit that these features are not disclosed by Nakagaki. For example, Applicants submit that Nakagaki does not disclose at least one summary frame also displayed on the display screen along with the video program in progress *at a same time when the programming channel is changed*. Additionally, Applicants submit that Nakagaki does not

disclose at least *one preview frame comprising a future frame from the video program in progress* displayed at a same time as the at least one summary frame and the video program in progress.

As discussed above, Applicants submit that Nakagaki discloses a delay circuit that will record a currently-watched television signal for delayed viewing. When a user changes a channel, the delay circuit will only then begin to record that channel in the delay circuit. Therefore, Applicants submit that at the point a channel is changed from an “old” channel to a “new” channel, the delay circuit will not have any of the “new” channel recorded therein. Thus, Applicants submit that Nakagaki does not disclose at least one summary frame also displayed on the display screen along with the video program in progress *at a same time when the programming channel is changed*.

Additionally, Applicants submit that Nakagaki is not capable of providing at least *one preview frame comprising a future frame from the video program in progress* displayed at a same time as the at least one summary frame and the video program in progress. As discussed above, the memory device of Nakagaki records the channel currently being watched by sending a split of the received channel signal through the memory device. See Figure 1. Thus, Applicants submit that it would be impossible for the Nakagaki device to ever provide at least *one preview frame comprising a future frame from the video program in progress* displayed at a same time as the at least one summary frame and the video program in progress, as the memory device can only display what has been recorded, and can only record up to the present time. In other words, the memory device of Nakagaki can not display what has not yet been broadcast, received by the television receiver and recorded to the memory device.

Therefore, Applicants submit that Nakagaki does not disclose each feature of independent claim 36.

Moreover, Applicants respectfully submit that the Examiner did not properly reject claim 36, in that the Examiner did not address each of the claim features. Specifically, the Examiner stated, “With regards to claim 36, the limitations of the claim have been discussed with regards to claims 21 – 24.” However, Applicants submit that the features of claim 36 are different from those of claims 21 – 24. For example, claim 36 recites, “. . . at least one preview frame comprising a future frame from said video program in progress displayed at a same time as said at least one summary frame and said video in progress . . .” (emphasis added). Thus, Applicants submit that the Examiner did not address each feature of claim 36. Additionally, as set forth above, Applicants submit that Nakagaki does not disclose at least one preview frame comprising a future frame from the video program in progress displayed at a same time as the at least one summary frame and the video program in progress.

*Dependent Claims 22 – 24, 26 – 28, 37 and 38*

Claims 22 – 24, 26 – 28, 37 and 38 are dependent claims, depending from respective distinguishable base claims. Accordingly, these claims should also be in condition for allowance based upon their dependencies.

Additionally, with regards to claim 24, Applicants submit that these features are not disclosed by Nakagaki. Claim 24 recites, in pertinent part:

at least one preview frame comprising a future frame from said video program in progress.

As discussed above, the memory device of Nakagaki records the channel currently being watched by sending a split of the received channel signal through the memory device. See Figure 1. Thus, Applicants submit that it would be impossible for the Nakagaki device to ever provide at least *one preview frame comprising a future frame from the video program in progress*, as the memory device can only display what has been recorded, and can only record up to the present time. In other words, the memory device can not display what has not yet been broadcast, received by the television receiver and recorded to the memory device.

Therefore, Applicants submit that Nakagaki does not disclose each feature of dependent claim 24.

Accordingly, Applicants respectfully request the rejection over claims 21 – 28 and 36 – 38 be withdrawn.

### ***35 U.S.C. § 103 Rejections***

Claim 29 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Nakagaki, claims 30, 32, 34 and 35 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,732,369 issued to Schein et al. (“Schein”), and claim 31 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Schein in view of U.S. Patent No. 5,815,145 issued to Matthews, III (“Matthews”). These rejections are respectfully traversed.

The Examiner bears the initial burden of factually supporting any prima facie conclusion of obviousness. To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success.

Finally, the prior art reference (or references when combined) must teach all the claim limitations. MPEP § 2142. Applicants respectfully submit that the applied references do not teach or suggest all of the claim limitations.

Independent Claim 30

Claim 30 recites, in pertinent part:

. . . selecting a plurality of summary frames depicting selected events from said video program; embedding said summary frames in said video program; transmitting said video program comprising said summary frames over a media and displaying said video program and said summary frames on a screen at a same time with said video program when a viewer changes to said video program.

The Examiner acknowledges that Schein does not teach or suggest displaying said video program and said summary frames on a screen at a same time with the video program *when a viewer changes to the video program*. However, the Examiner takes Official Notice that “it is well known to broadcast previews after returning from commercial breaks.” The Examiner then asserts, “[i]n such a case, when a viewer changes the to that channel at the end of the commercial break, the user is presented with a preview upon changing to that channel.”

The Examiner is reminded of the guidance provided by MPEP §2144.03 regarding the taking of Official Notice:

Official notice unsupported by documentary evidence should only be taken by the examiner where the facts asserted to be well-known, or to be common knowledge in the art are capable of instant and unquestionable demonstration as being well-known. As noted by the court in *In re Ahlert*, 424 F.2d 1088, 1091, 165 USPQ 418, 420 (CCPA 1970), the notice of facts beyond the record which may be taken by the examiner must be “capable of such instant and unquestionable demonstration as to defy dispute” (citing *In re Knapp Monarch Co.*, 296 F.2d 230, 132 USPQ 6 (CCPA 1961)).

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If such notice is taken, the basis for such reasoning must be set forth explicitly. The examiner must provide specific factual findings predicated on sound technical and scientific reasoning to support his or her conclusion of common knowledge. See *Soli*, 317 F.2d at 946, 37 USPQ at 801; *Chevenard*, 139 F.2d at 713, 60 USPQ at 241. The applicant should be presented with the explicit basis on which the examiner regards the matter as subject to official notice and be allowed to challenge the assertion in the next reply after the Office action in which the common knowledge statement was made.

...

If applicant adequately traverses the examiner's assertion of official notice, the examiner must provide documentary evidence in the next Office action if the rejection is to be maintained. See 37 CFR 1.104(c)(2). See also *Zurko*, 258 F.3d at 1386, 59 USPQ2d at 1697 ("[T]he Board [or examiner] must point to some concrete evidence in the record in support of these findings" to satisfy the substantial evidence test). If the examiner is relying on personal knowledge to support the finding of what is known in the art, the examiner must provide an affidavit or declaration setting forth specific factual statements and explanation to support the finding. See 37 CFR 1.104(d)(2).

Applicants submit that it is not well known to broadcast previews after returning from commercial breaks, as the Examiner asserts. Applicants submit that broadcasting a preview after returning from a break would allow a viewer to see what is about to happen in the program. Thus, Applicants submit that the Examiner's Official Notice is improper in this instance, as the facts asserted to be well-known, or to be common knowledge in the art are not capable of instant and unquestionable demonstration as being well-known. Accordingly, Applicants respectfully request that the Examiner provide a reference that teaches or suggests broadcasting previews after returning from commercial breaks.

Additionally, assuming *arguendo* that it is well known to broadcast previews upon returning from a commercial break (which Applicants do not concede), Applicants submit that Schein in view of the Examiner's Official Notice does not teach or suggest displaying the video

program and the summary frames on a screen at a same time with said video program when a viewer changes to said video program.

The Examiner, in addressing this claim, presented a hypothetical situation in which a user, utilizing the system of Schein, is watching a program and at the same time is using the electronic program guide (EPG), with the EPG tuned to the same channel that is currently being watched. Thus, the screen would display the current program and a sub-screen also showing the current program, as is shown in Fig. 17B. In this situation the Examiner asserts that it is possible to change to a channel at a particular time when the program is showing a “preview”. However, Applicants submit that both the main image and the sub-screen would both be displaying the “preview”. Thus, Applicants submit that even in this hypothetical situation, Schein does not teach or suggest displaying the video program and the summary frames on a screen at a same time with the video program when a viewer changes to the video program.

Therefore, Applicants submit that Schein does not teach or suggest each feature of independent claim 30.

*Dependent Claims 29, 31, 32, 34 and 35*

Claims 29, 31, 32, 34 and 35 are dependent claims, depending from respective distinguishable base claims. Accordingly, these claims should also be in condition for allowance based upon their dependencies.

Additionally, with regards to claim 31, Applicants submit that these features are not taught or suggested by Schein in view of Matthews. Claim 31 recites, in pertinent part, “... resuming said video program when said video segment has finished.”

In addressing this feature, the Examiner asserts that:

Schein further discloses an exit area that allows a viewer to exit back to the television (Col. 22, Lines 48 – 50). This reads on the claimed resuming the video program when the video segment has finished.

Applicants respectfully disagree. Applicants acknowledge that Schein discloses an exit area that allows a user to exit from the EPG. However, Applicants submit that Schein explicitly discloses that the exit area, “allows the viewer to immediately exit back to the television by navigating to exit area 522 and clicking on the remote control device,” (Col. 22, lines 48). Thus, Applicants submit that Schein does not disclose “resuming the video program when the video segment has finished,” as Schein requires the user to take at least two proactive steps in order to resume a video program. First, the user must navigate to the exit area and second, the user must click on the remote control device. Thus, with Schein, the video program will not resume when the video segment has finished, but rather requires further user action.

Furthermore, Applicants submit that Matthews does not cure the deficiency of Schein. Matthews discloses a method of providing programming information to viewers using an interactive television or televideo system. More specifically, Matthews discloses, at column 4, line 46, that:

[v]ideo program guide 100 displays for a viewer multiple video programming tiles 102 corresponding to programming available on selected channels during a program schedule period.

Further, Matthews discloses, at column 5, line 52, that:

. . . a viewer at selected viewer station 20 requests or accesses the video program guide 100. The video program guide 100 may be assigned a channel number like any other programming on IT system 10 and accessed, for example, by the viewer keying the channel number on numeric keypad 92 or scrolling to the channel. The video program guide 100 may be one of several alternative program guides available on IT system 10, either on separate channels or as selections from a system menu accessed on a program guide channel.

Thus, Applicants submit that Matthews discloses a video program guide, resident on a particular channel, that is accessed by selecting that channel. Moreover, Applicants submit that the video program guide of Matthews displays only the video program guide by itself, and not as a sub-screen overlaying the previously viewed channel. See Fig. 4. Additionally, Applicants submit that the Examiner only cited Matthews for the teaching of “displaying a video segment corresponding to a particular summary frame when said summary frame is selected by a viewer.”

Therefore, Applicants submit that Matthews does not disclose resuming the video program when the video segment has finished, as recited by claim 31. Rather, with Matthews a user may watch a video segment within the video program guide. As the program guide is on its own channel, the user would not be able to watch the video segment overlaying a video program in progress. Moreover, after that video segment ends the user will still be within the video program guide. In order to exit the video program guide, as taught by Matthews, a user would need to switch channels. Thus, a user would be required to take additional steps to revert from the video program guide to the video program in progress, such that Matthews does not cure the deficiencies of Schein.

Therefore, Applicants submit that Schein in view of Matthews does not teach or suggest each feature of dependent claim 31.

Accordingly, Applicants respectfully request the rejections over claims 29 – 32, 34 and 35 be withdrawn.

### ***Other Matters***

Applicants respectfully submit that the Examiner did not provide a complete action, and as such, Applicants submit that the last action should not be a final action. The Examiner is

reminded of the guidance provided by 37 C.F.R. § 1.104(a)(1) regarding the Nature of Examination (emphasis added):

On taking up an application for examination . . . the examiner shall make a thorough study thereof and shall make a thorough investigation of the available prior art relating to the subject matter of the claimed invention. The examination shall be complete with respect to both compliance of the application . . . with the applicable statutes and rules and to the patentability of the invention as claimed, as well as with respect to matters of form, unless otherwise indicated.

As discussed above the Examiner did not address claims 21, 25 and 36 as claimed. Specifically, with regards to claims 21 and 25, the Examiner did not address the limitation: *when said programming channel is changed*. Further, with regards to claim 36, the Examiner did not address the limitation: *at least one preview frame comprising a future frame from said video program in progress displayed at a same time as said at least one summary frame and said video in progress*. Thus, Applicants submit that the Examiner did not conduct a complete examination, as the Examiner did not address the invention as claimed.

Thus, Applicants submit that the finality of the last rejection was premature and respectfully request that the finality of the rejection be withdrawn.

**CONCLUSION**

In view of the foregoing remarks, Applicants submit that all of the claims are patentably distinct from the applied prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue. The Examiner is invited to contact the undersigned at the telephone number listed below, if needed. Applicants hereby make a written conditional petition for extension of time, if required. Please charge any deficiencies in fees and credit any overpayment of fees to Attorney's Deposit Account No. 50-0510.

Respectfully submitted,  
Boon-Lock YEO



Andrew M. Calderon  
Reg. No. 38,093

GREENBLUM & BERNSTEIN, P.L.C.  
1950 Roland Clarke Place  
Reston, VA 20191  
(703) 716-1191